Deep learning techniques for energy clustering in the CMS electromagnetic calorimeter

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on behalf of the CMS collaboration

➔ New algorithm developed for CMS ECAL reconstruction.

➔ Using cutting-edge techniques in Machine Learning:
  ● Graph Neural Networks
  ● Self-attention modules
  ● Transfer Learning

➔ Significant improvement in energy resolution achieved compared to Run2 algorithms.

➔ Beyond energy reconstruction: more reconstruction possibilities using the same network...

https://www.biocatch.com/blog/behavioral-biometrics-primer-dynamic-fraud-detection